



PCT

特許協力条約に基づいて公開された国際出願

<p>(51) 国際特許分類7 B01F 3/04, 5/00</p>	<p>A1</p>	<p>(11) 国際公開番号 WO00/69550</p> <p>(43) 国際公開日 2000年11月23日 (23.11.00)</p>
<p>(21) 国際出願番号 PCT/JP00/03089</p> <p>(22) 国際出願日 2000年5月15日 (15.05.00)</p> <p>(30) 優先権データ 特願平11/171491 1999年5月15日 (15.05.99) JP</p> <p>(71) 出願人; および (72) 発明者 大成博文(OHNARI, Hirofumi)[JP/JP] 〒745-0807 山口県徳山市城ヶ丘三丁目15-20 Yamaguchi, (JP)</p> <p>(74) 代理人 村田幸雄(MURATA, Yukio) 〒104-0028 東京都中央区八重洲2丁目6番5号 八重洲5の5ビル 東知特許事務所 Tokyo, (JP)</p>	<p>(81) 指定国 AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, OD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, 欧州特許 (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG), ARIPO特許 (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM)</p> <p>添付公開書類 国際調査報告書</p>	

(54) Title: SWING TYPE FINE AIR BUBBLE GENERATING DEVICE

(54) 発明の名称 旋回式微細気泡発生装置

(57) Abstract

A swing type fine air bubble generating device, comprising a container main body having a bottomed cylindrical space (1) or a megaphone-shaped space of which inlet part is closed, a pressure liquid inlet port (2) provided in a part of the inner peripheral wall surface of the space in tangential direction, a gas inlet hole (4) provided in the bottom part (3) of the cylindrical space or the inlet port of the megaphone-shaped space, and a swing air/liquid mixture outlet port (5) provided in the tip of the cylindrical space or the megaphone-shaped space, whereby the device can produce fine air bubbles easily on industrial scale, be manufactured easily because it is relatively small in size and simple in structure, and be used effectively for purification of water of ponds, lakes, dams, and rivers, for sewage disposal by microorganisms, for cultivation of fishes and aquatic animals, for increase in oxygen and dissolved amount of oxygen contained in hydroponic culture liquid, and for increase in yield rate.

